MULTIMEDIA UNIVERSITY

STUDENT IDENTIFICATION NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2015/2016

BAC7124 – RESEARCH METHODOLOGY

(MACC Weekend)

13 December 2015
10.00 a.m – 1.00 p.m
(3 Hours)

INSTRUCTIONS TO STUDENT

1. This Questions paper consists of **3 pages** (including the cover page) with 5 Questions only.

2. Answer all **FIVE** questions. Mark distribution of each question is given.

3. Please print all your answers in the Answer Booklet provided.

There are FIVE (5) questions in this section. Candidate MUST answer ALL questions.

Question 1 (20 Marks)

Identify and discuss all of the key characteristics that are the hallmark of a scientific research. (20 marks)

Question 2 (20 Marks)

a) Scientific research pursues a step-by-step, logical, organized, and rigorous approach. The hypothetico-deductive method by Karl Popper is a typical version of the scientific method. Describe the method according to its logical order.
(14 marks)

b) A literature review means locating, summarizing and critically synthesizing the relevant and related studies on a topic. In research we do literature review on topic(s) of the research focus; often guided by the theoretical framework. Often these are research work but may also include conceptual articles, thought pieces, books, etc. Why is a good literature review important to a research project?
(6 marks)

Question 3 (20 Marks)

An investigator wants to evaluate whether a new technique to teach science to secondary school students in Malaysia is more effective than the standard teaching method. The project leader contacted 10 randomly selected public secondary schools from each state. However, only one school responded favorably. After the preliminary meeting with the school officials and the state education department, the team was referred to a class and the class teacher. Permissions from the parents were obtained. Finally, the data collection can commence. Using an experimental design, the investigator divides the class into two groups. Students who are weak in science are assigned to the first group (Group A), where the teacher uses the new teaching method. Students who are good in science are assigned to the second group (Group B), where the teacher uses a standard teaching method. The investigator collected the scores of Group A after 2 weeks of experiment, while scores from Group B were collected after 4 weeks of experiment. At the end of the study, the results indicated that the students in the new teaching method group scored significantly higher on their final exam than the students in the standard teaching group.

a) Comment on the suitability and validity of this experiment in arriving to the conclusion that the new teaching method is better than the standard teaching method.
(10 marks)

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b) What would happen if the researcher allowed the students to study together or talk about the different method that were being used to teach the science lesson? Would this be a good or a bad idea? How would this influence the study results? (10 marks)

Question 4 (20 Marks)

a) Compare and contrast between the two main research approach; deductive and inductive. (10 marks)

b) Yin (1994) identified and discussed six types of evidence commonly used in case study research. If an investigator wants to conduct a case study on the usage of technology in retail by a well-known high street retailer, specifically on how the technology impacts customer experience. Identify the types of evidence you would use if you are the investigator and explain why. (10 marks)

Question 5 (20 Marks)

a) Discuss the general steps when performing qualitative data analysis. (10 marks)

b) Researchers investigating inanimate objects are not likely to face ethical issues unless those objects pollute the environment or cause harm. When the work involves humans, what are the guiding principles researchers should follow to ensure proper research ethics? (10 marks)

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